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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,467	08/11/2005	Yingjian Liu	58260-011300	8948

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EXAMINER
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SIM, YONG H

ART UNIT	PAPER NUMBER
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2629

NOTIFICATION DATE	DELIVERY MODE
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02/27/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

SchindlerB@gtlaw.com  
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<i>Office Action Summary</i>	Application No. 10/506,467	Applicant(s) LIU ET AL.	
	Examiner YONG SIM	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2008.  
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,2,7 and 8 is/are rejected.  
7) ☒ Claim(s) 3-6 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

DETAILED ACTION

*Response to Arguments*

1. Applicant's arguments with respect to claims 1 - 8 have been considered but are moot in view of the new ground(s) of rejection.

*Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oda (US 5,646,377) in view of Wieczorek et al. (Hereinafter "Wieczorek" US5,557,076).

Re claim 1, Oda teaches a wireless and passive tableting apparatus (Fig. 1 "Point detecting device") for computer inputting (100 "host computer" Fig. 1) comprising a tablet (10 "sensor panel/tablet" Fig. 1) and a pen (30 "pointing device" Fig. 1),

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characterized in that nothing wires the pen (See Fig. 1) and the tablet and no battery is in the pen (See Fig. 1. The pen does not comprise a battery.), the tablet which can sense pressure from the pen (Col. 7, lines 20 – 23; “The pointing device is a pen which is constituted to vary the capacitance of the resonant circuit when the pen is pressed onto the panel/tablet.”) comprises a transmitting circuit (24 “transmitting unit/circuit” Fig. 1), a receiving circuit (25 “receiving unit/circuit” Fig. 1), an amplifying circuit (A “amplifier” Fig. 10), a phase angle and amplitude detecting circuit (Col. 17, lines 31 – 35; “The signal detecting unit processes and operates the amplitude and phase angle of the received signal.”) and an integrating circuit (Col. 25, lines 63 – 67; “a signal processing circuit generates the real number part of the aimed frequency component of the received signals by integration.” The integration circuit is within the signal processing circuit.); and the pen comprises a paralleled resonant circuit composed of capacitors and inductors (Col. 17, lines 15 – 17; “The pointing device includes a coil/inductor, capacitor and a switch. The coil and capacitor constitute a resonant circuit.” See Fig. 1. The coil and capacitor are in parallel.); the connection relations between them are as follows: an auxiliary CPU (100 “computer” fig. 1), which generates a square wave, connects with the transmitting circuit, which can transmit electromagnetic wave continuously; the pen circuit receives the electromagnetic wave transmitted from the transmitting circuit to produce a resonant signal; the resonant signal is transmitted to the receiving circuit continuously (Col. 18, line 64 – Col 19, line 5; “provide a constant received signal. A transmitter transmits a signal to the pointing device/resonant circuit and a receiver arranged at the opposite end of receives the

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signal generated by the pointing device and the transmitter.), and amplified by an amplifying circuit that connects with the receiving circuit; the amplified signals is inputted into the phase angle and amplitude detecting circuit (See Fig. 20(b). Col. 25, lines 43 – 50; “the add operation is performed in a preamplifier which is a signal input section of the signal detecting unit. The added signals are properly amplified an then output to the succeeding phase detector.”), and the signals output from the phase angle and amplitude detecting circuit are inputted into a primary CPU via the integrating circuit (Fig. 21 shows an integrating circuit which is included in the processor 80 sends the signal to the computer 100).

But does not expressly teach a transmitting circuit comprising a plurality of coils in a first direction and a receiving circuit comprising a plurality of coils in a second direction which is perpendicular to the first direction, continuously generated square wave and the frequency of the resonant signal is different from the frequency of the transmitted electromagnetic waves and the transmission of the electromagnetic waves and the receiving of the resonant signal occur simultaneously.

However, Wieczorek teaches a cordless position detection apparatus comprising a plurality of coils running along the x-direction and y-directions (Wieczorek: See Fig. 1) and continuously generates a square wave pulses wherein the frequency of a resonant signal produced from a pen circuit is different from the frequency of the transmitted electromagnetic waves (Wieczorek: Col. 8, lines 29 – 49 and also See Fig. 4. The square wave pulses are different from the resonant frequency.) .

Therefore, taking the idea of Oda and Wieczorek, as a whole, it would have been obvious to a person having ordinary skill in the art to incorporate the idea of using the continuous pulse signals and a plurality of coils in a first and second direction which is perpendicular and the frequency of the resonant signal and the transmitted electromagnetic waves are different as taught by Wieczorek into the wireless apparatus of Oda to obtain a wireless and passive tableting apparatus wherein a plurality of coils in a first and second directions are perpendicular to each other and a square transmission waves and resonant signal waves different from each other simultaneously and continuously to generate, detect and update the position of the wireless pen continuously without any intervals to avoid loss in the rate of data transmission and determine accurate position reading (Wieczorek: Col. 8, lines 61 – 64).

4. Claims 2 and 7 – 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oda (US 5,646,377) in view of Wieczorek, as applied to claim 1 above, and further in view of Lee et al. (Hereinafter “Lee” US 6,476,799 B1).

Re claim 2, the combined teachings of Oda in view of Wieczorek teach the wireless and passive tableting apparatus of claim 1.

But does not expressly disclose the circuit arrangement of claim 2.

However, Lee teaches a transmitting circuit and receiving circuit comprising coils in a first direction, coils in a second direction and chips (Lee: See Fig. 3); terminals of the receiving circuit are connected to pins corresponding to ports of each of a set of

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chips for a first subset of chips (Lee: Fig. 3, U1 and U2), said chips have ports corresponding to pins connecting with the coils in the first direction respectively (Lee: Fig. 3, x0 - 7 of U1 and U2), the coils have output terminals which are grounded (Lee: See Fig. 3), said chips have terminals (Lee: Fig. 3, terminals A, B and C of U1 and U2) corresponding to pins used for chip selection, said chips have terminals corresponding to pins which are gating terminals, all connecting with the primary CPU, and each of said chips has a terminal corresponding to a pin connected to a negative voltage (Lee: See Fig. 3 for the detailed layout.);

the square wave generated by the auxiliary CPU is inputted into a pin corresponding to a port of each of a second subset of chips via terminals of the transmitting circuit (See the line connected to port X of each chip); and

for the second subset of chips, said chips have ports corresponding to pins connecting with the coils in the first direction respectively, the coils have output terminals which are grounded, said chips have terminals corresponding to pins used for chip selection (See the configuration of U3 and U4 in fig. 3.),

said chips have terminals corresponding to pins which are gating terminals, all connecting with the primary CPU, and each of said chips has a terminal corresponding to a pin connected to a negative voltage (See Fig. 3 for the detailed layout.).

Therefore, taking the combined teachings of Oda, Wiecezorek and Lee, as a whole, it would have been obvious to a person having ordinary skill in the art to incorporate the idea of using the circuit layout as taught by Lee into the apparatus of Oda and Wiecezorek to obtain a wireless and passive tableting apparatus having the

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circuit arrangement as described above which includes a plurality of multiplexers for accurately scanning the movement of the wireless pen.

Re claim 7, the combined teachings of Oda and Wieczorek teach the wireless and passive tableting apparatus of claim 1.

But does not expressly disclose the connection relations of the parallel resonant circuit in the pen circuit.

However, Lee teaches the connection relations of the parallel resonant circuit in the pen circuit wherein an inductor connects directly with a variable capacitor and a plurality of capacitors in parallel (Lee: See Fig. 5; C1, C2, C3 and C4 are in parallel with L1);

the plurality of capacitors connect directly in parallel with a series combination of a switch and a resistor (Lee: See Fig. 5; the capacitors are connected in parallel with a resistor R1 and SW3), wherein one end of the switch and one end of the resistor are directly connected and the other end of the switch connects with the other end of the resistor to form a loop (Lee: See Fig. 5).

Therefore, taking the combined teachings of Oda, Wieczorek and Lee, as a whole, it would have been obvious to a person having ordinary skill in the art to incorporate the idea of having a pen with the configuration as taught by Lee into the wireless and passive tableting apparatus as taught by Oda and Wieczorek to obtain a wireless and passive tableting apparatus wherein a pen comprises a resonant circuit



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and a resistor and a switch connected in such a way to allow the user to utilize a push-button circuit make selections in a tableting apparatus.

Re claim 8, Lee teaches a switch of the pen which is a switch on the pen, functioning as the right button of a mouse (Col. 7, lines 20 - 25; "The second push-button circuit 230 includes a plurality of switches SW1, SW2 and SW3, each of which can be a push-button. and operate in a similar manner as the first push-button circuit 130 above (130 is the push-button for a mouse. Therefore, one of the buttons will inherently include the right button.).

#### *Allowable Subject Matter*

1. Claims 3 - 6 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### *Conclusion*

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YONG SIM whose telephone number is (571)270-1189. The examiner can normally be reached on Monday - Friday (Alternate Fridays off) 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/YONG SIM/  
Examiner, Art Unit 2629

/Amr Awad/  
Supervisory Patent Examiner, Art Unit 2629

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